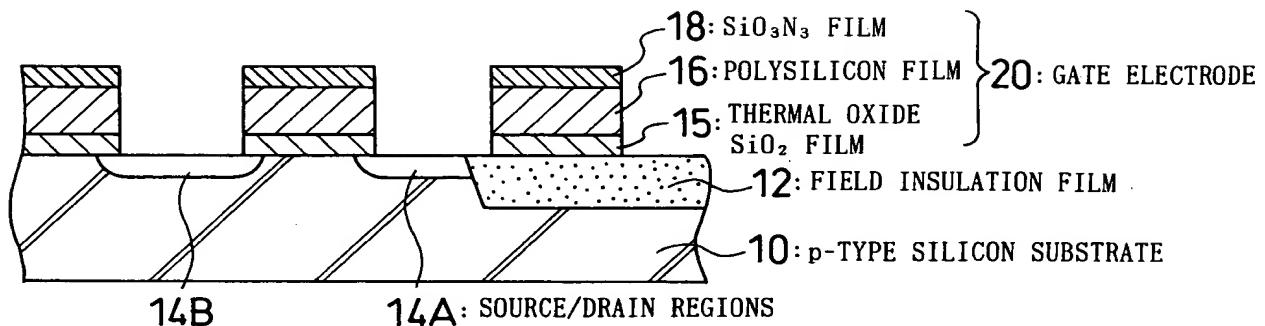
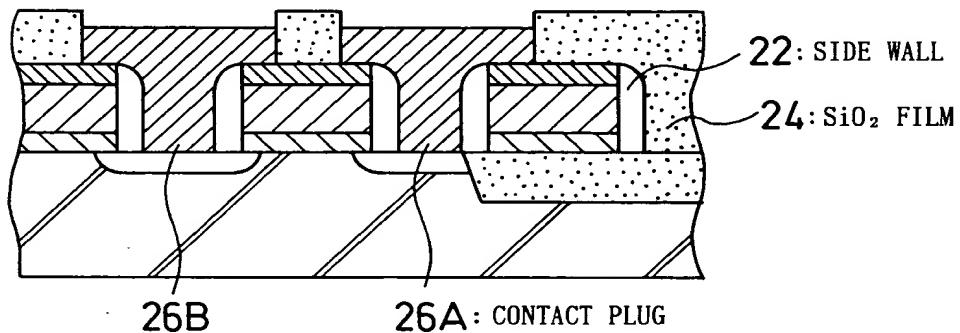


Fig. 1

(a)



(b)



(c)

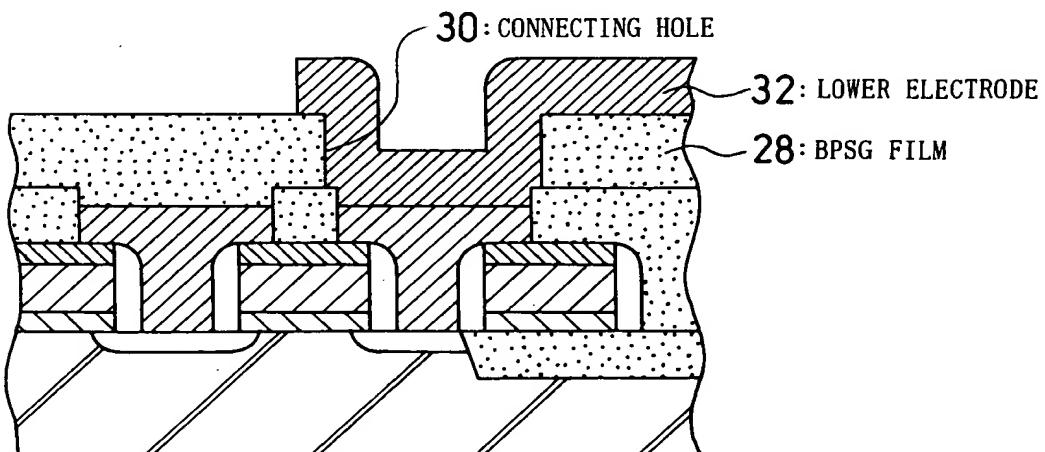
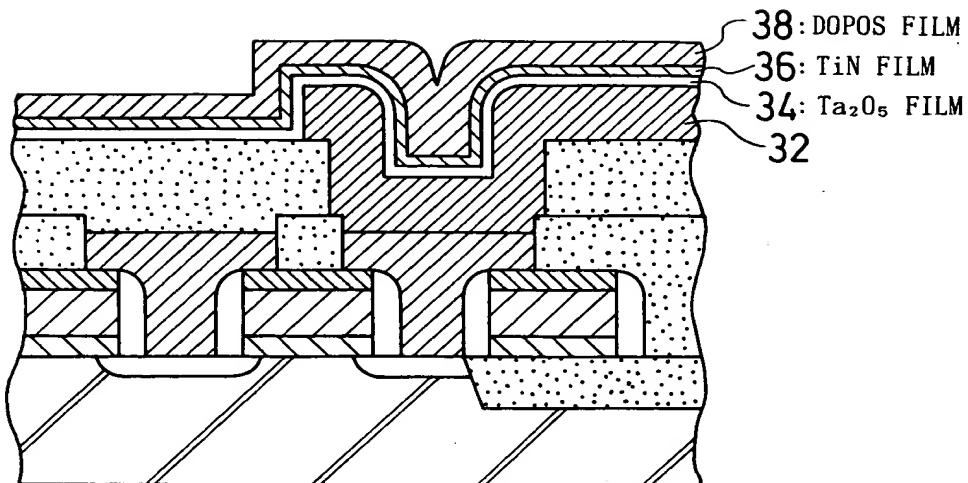


Fig. 2

(d)



(e)

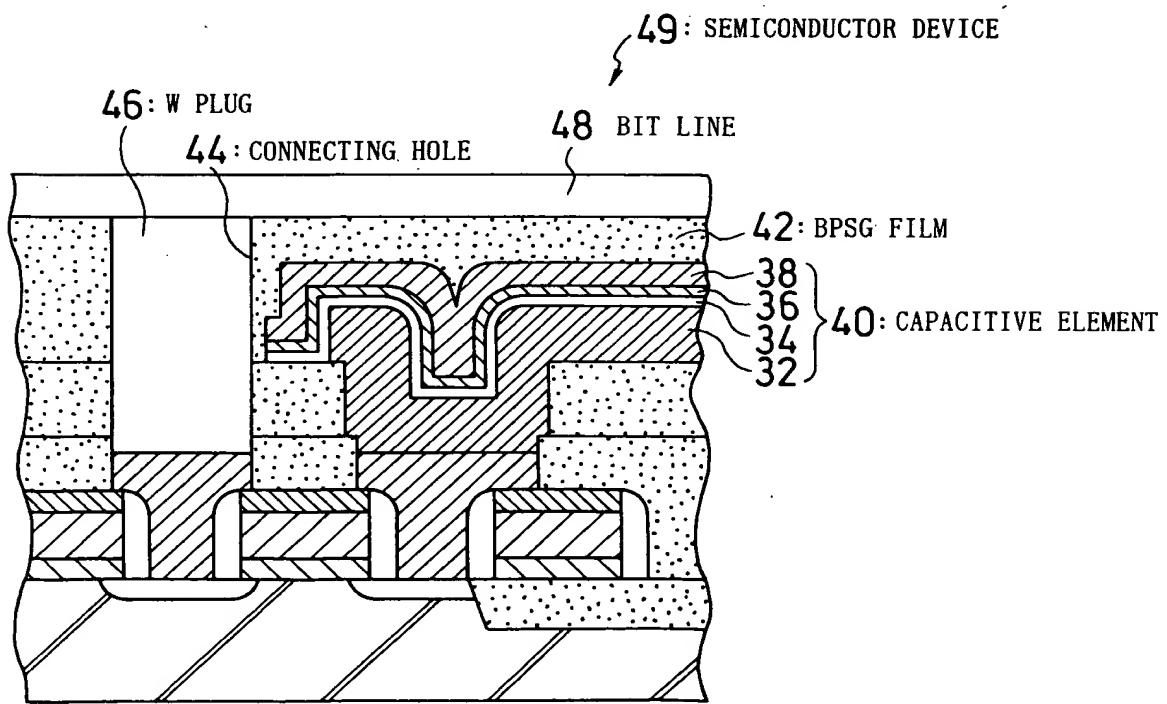


Fig. 3

3/15

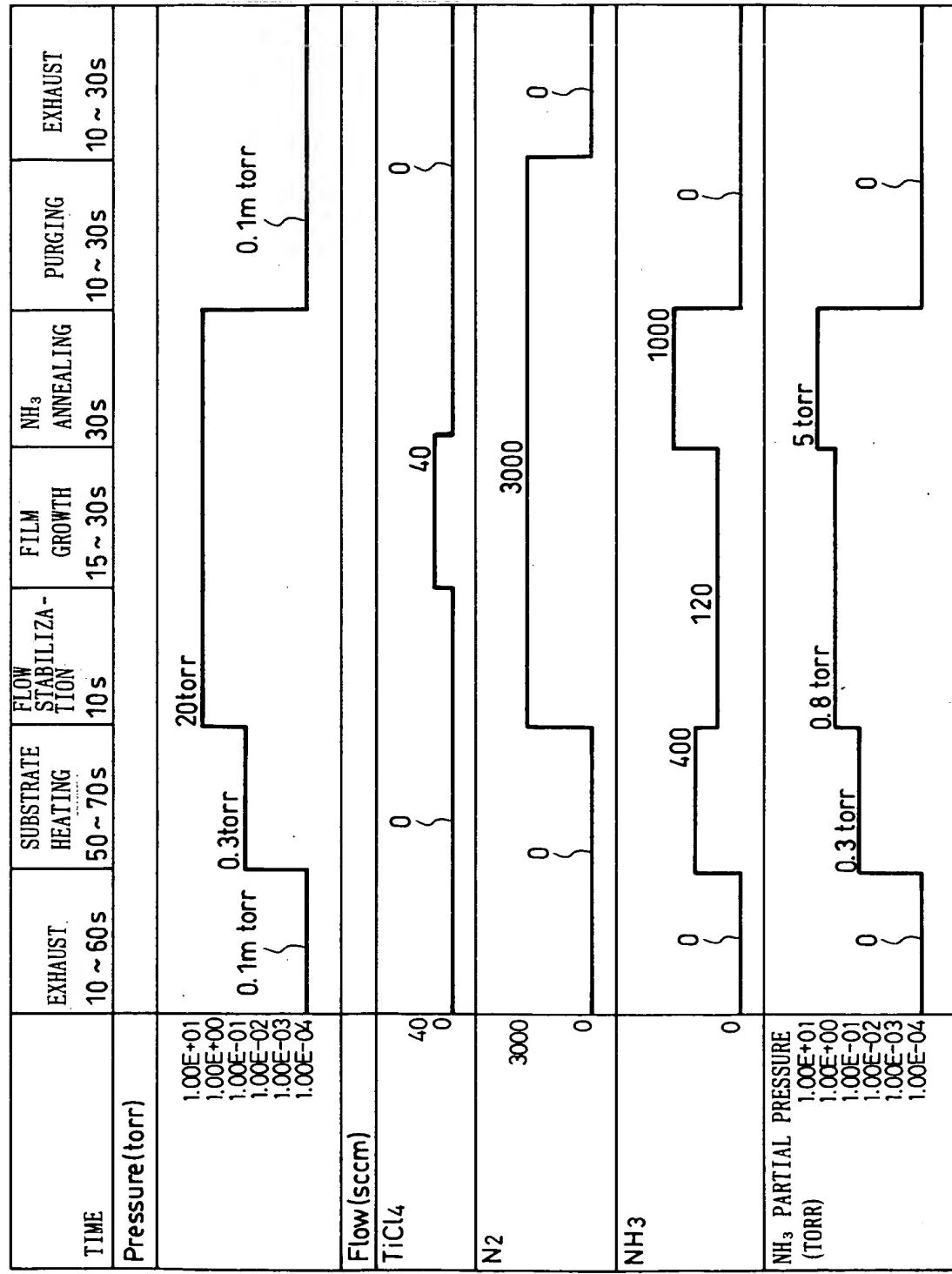
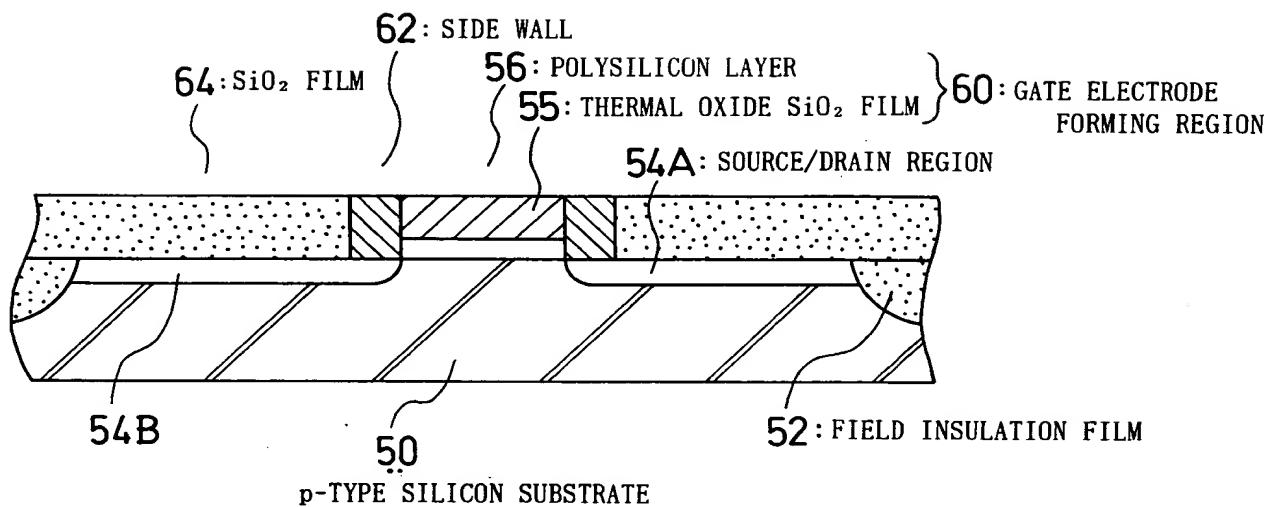


Fig. 4

(a)



(b)

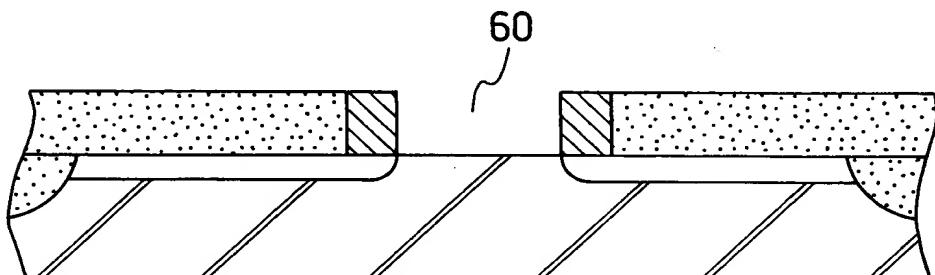
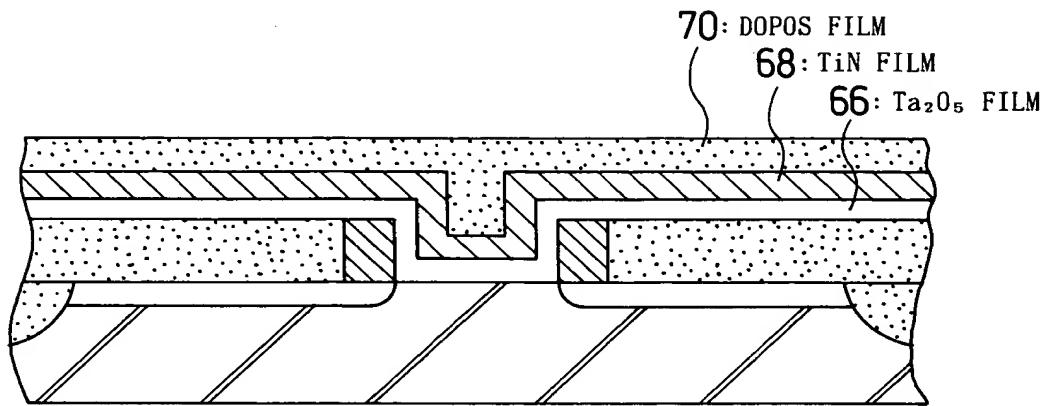


Fig. 5

(c)



(d)

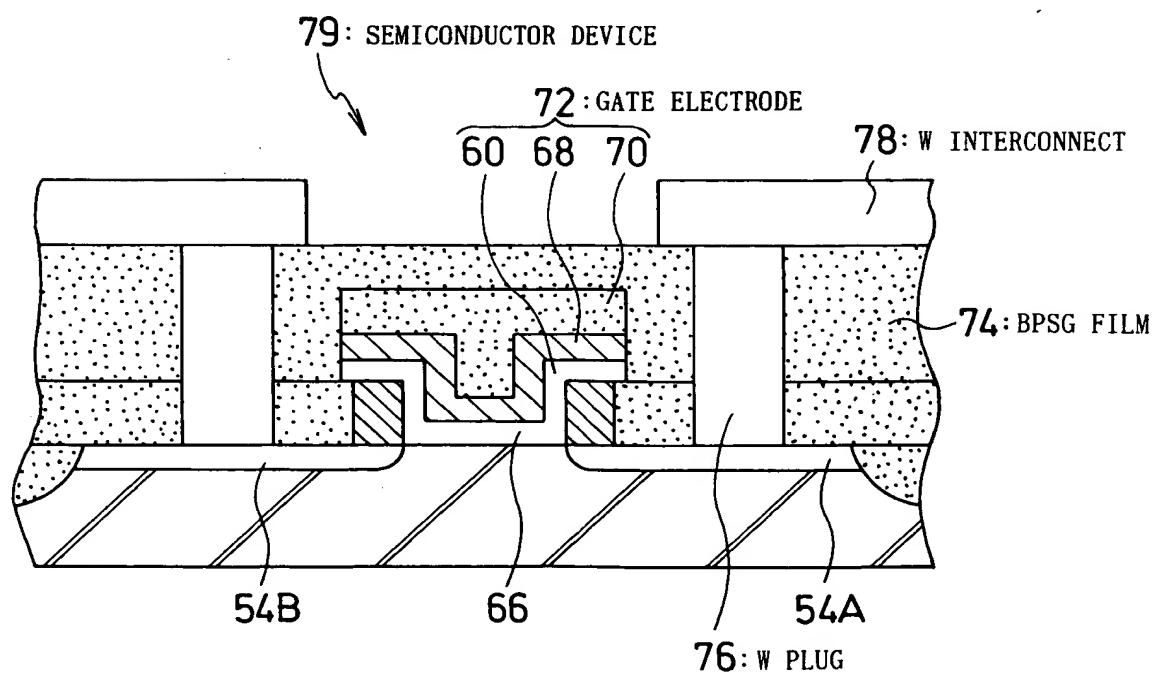


Fig. 6

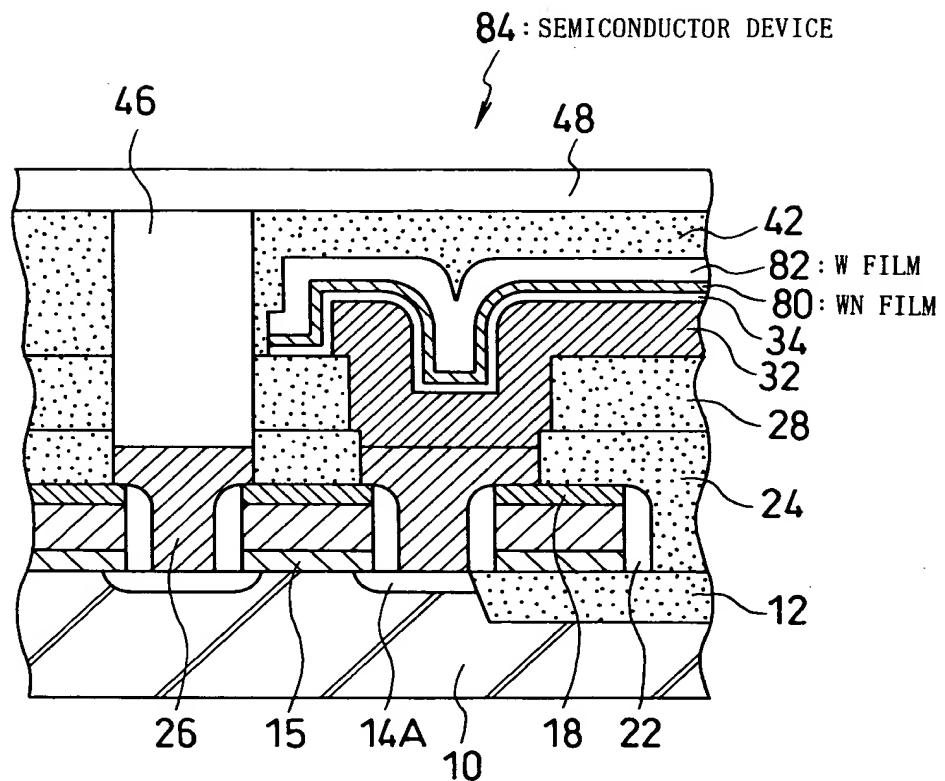


Fig. 7

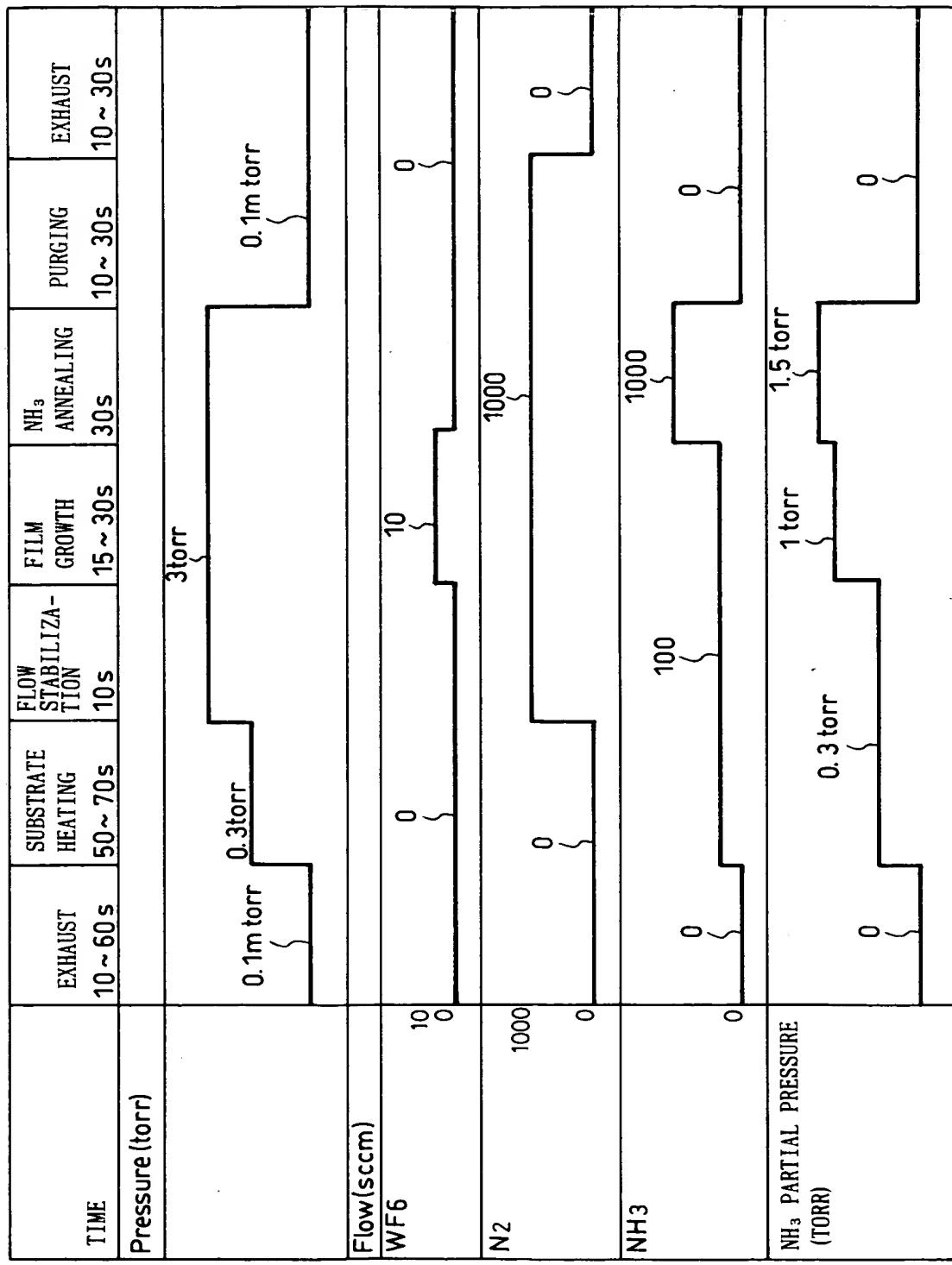
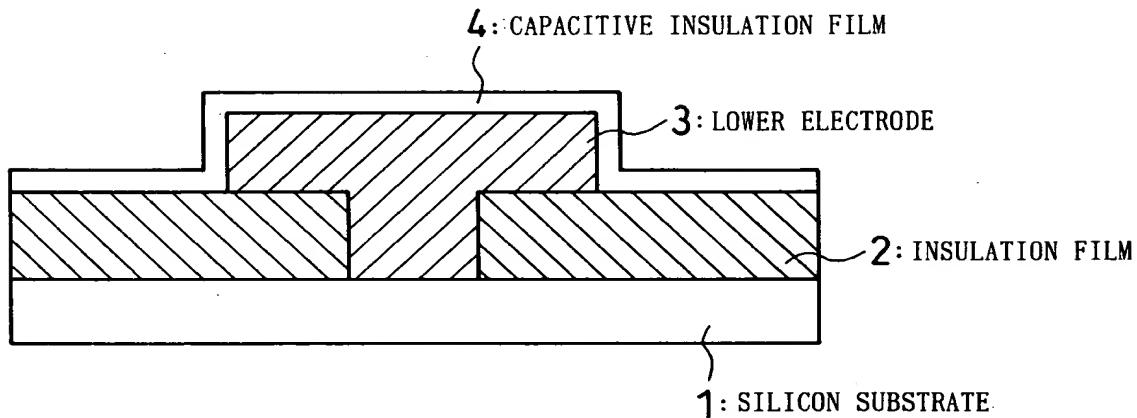
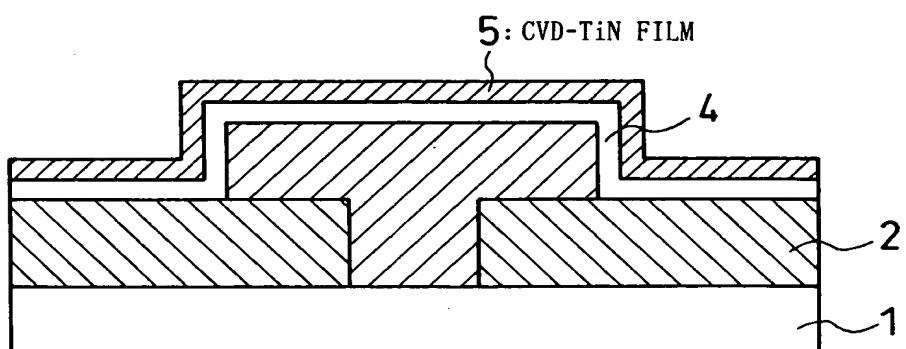


Fig. 8

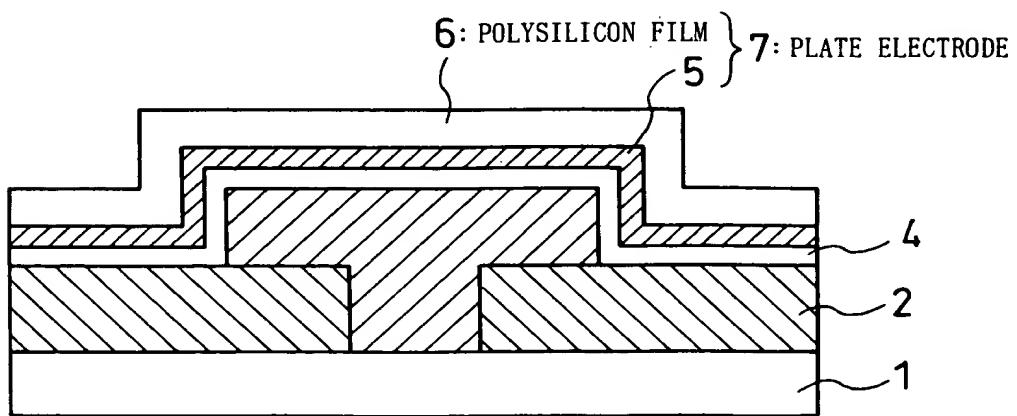
(a)



(b)

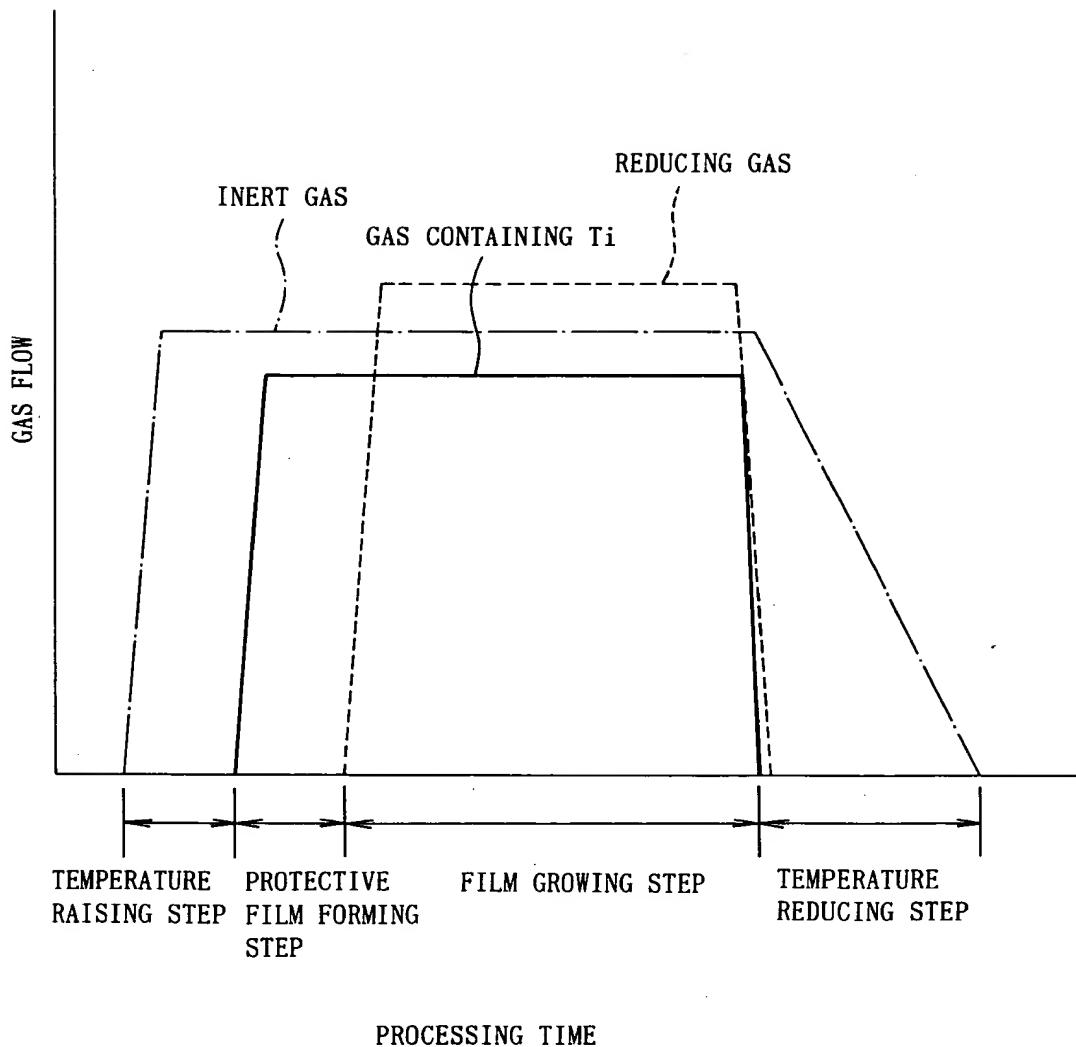


(c)



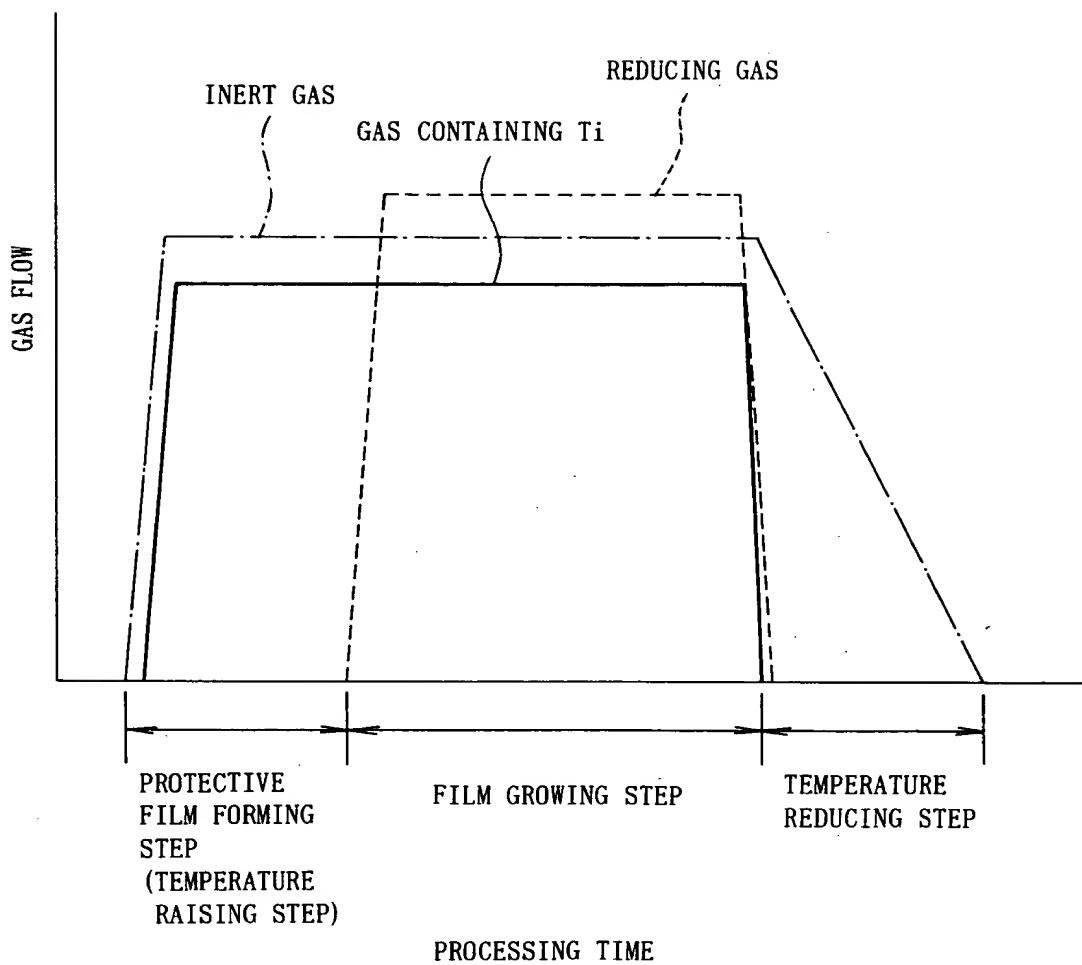
9/15

Fig. 9



10/15

Fig. 10



11/15

Fig. 11

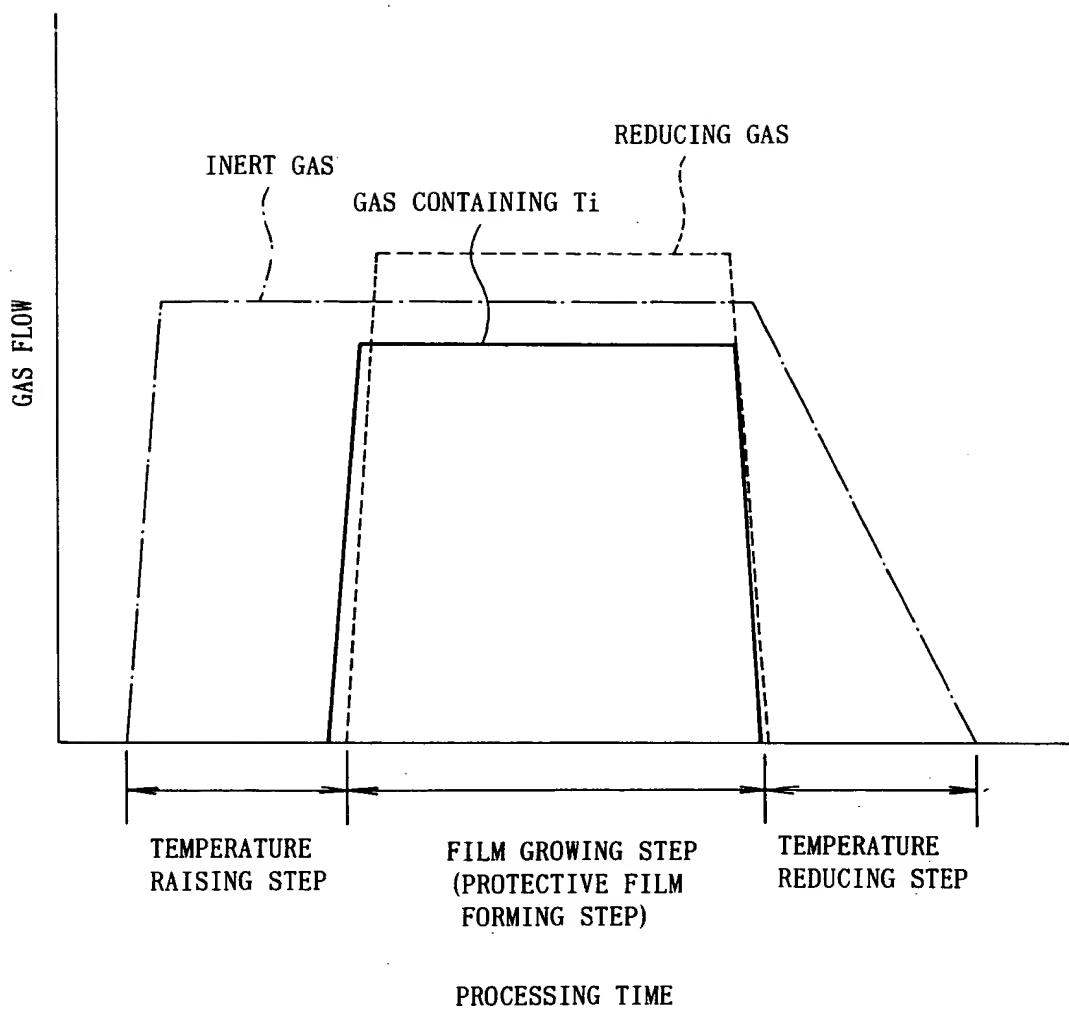
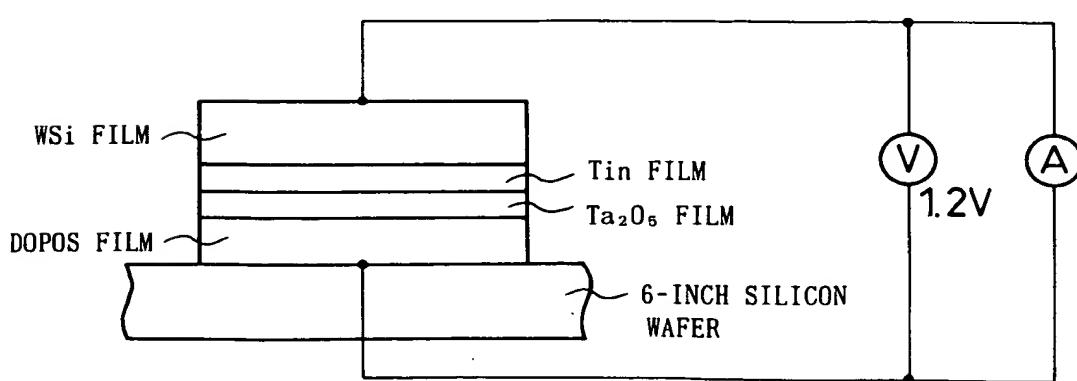


Fig. 12



12/15

Fig. 13

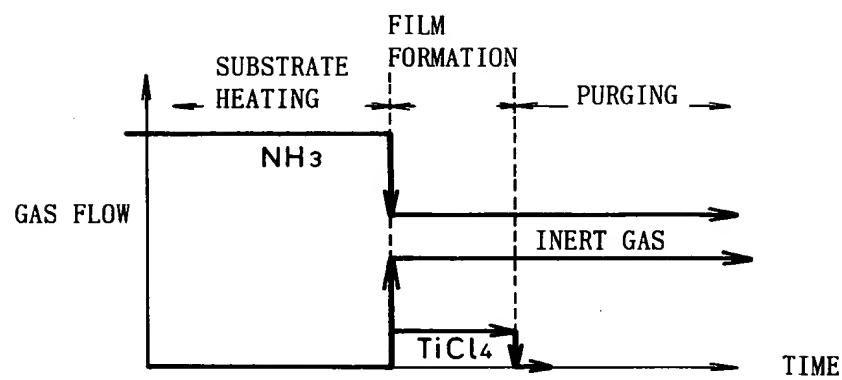


Fig. 14

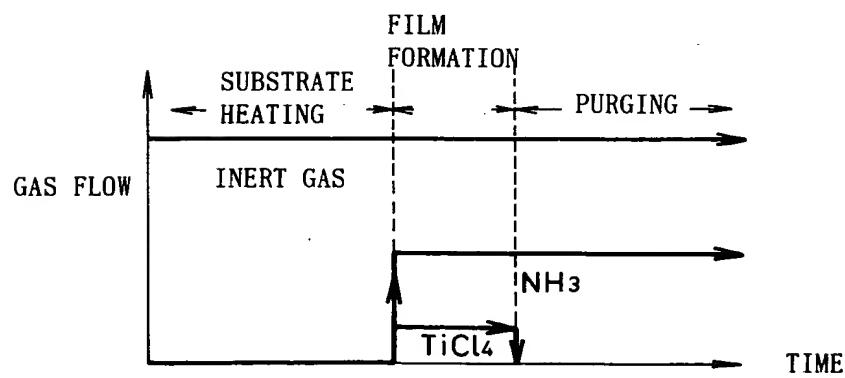


Fig. 15

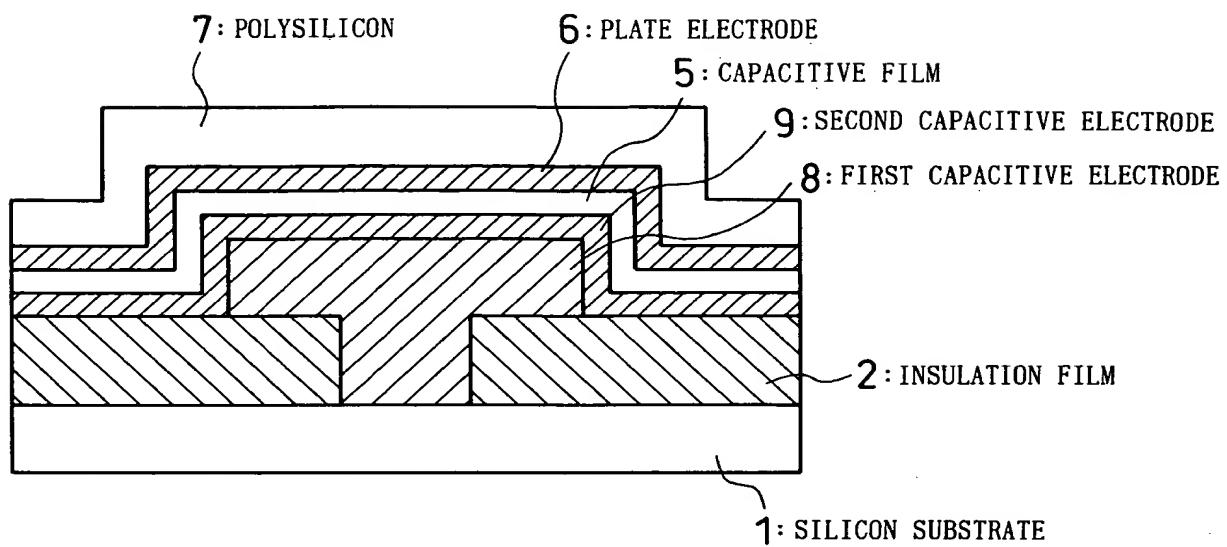


Fig. 16

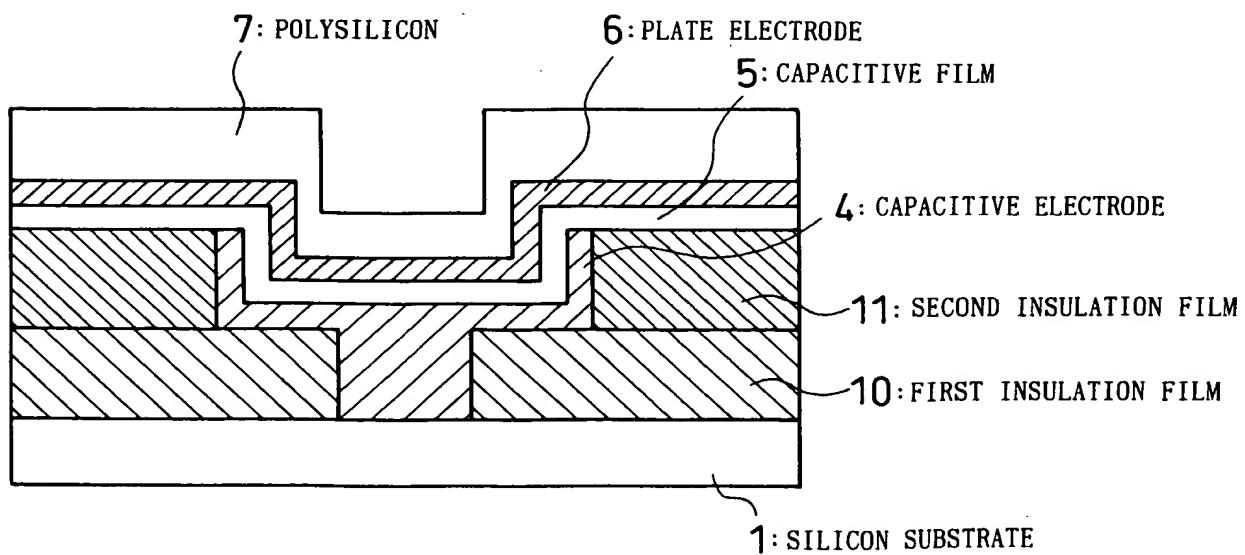


TABLE 1

	Leakage current value $10^{-8} \text{ [A/cm}^2\text{]}$			T <sub>ox</sub> [Å]
	Minimum value within surface	value over 50% of surface	Maximum value within surface	value over 50% of surface
Experimental example 1	2. 58	3. 39	17. 96	32. 74
Experimental example 2	2. 83	4. 17	20. 348	32. 97
Experimental example 3	4. 606	9. 98	23. 8	33. 25
Experimental example 4	5. 882	11. 2	25	33. 87

TABLE 2

	Leakage current value $10^{-8} \text{ [A/cm}^2\text{]}$			T <sub>ox</sub> [Å]
	Minimum value within surface	value over 50% of surface	Maximum value within surface	value over 50% of surface
Prior art example	0. 074	0. 11	0. 194	34. 27
Experimental example 5	0. 032	0. 074	0. 128	34. 35

15/15

TABLE 3

	Leakage current value			To x
	Minimum value within surface	value over 50% of surface	Maximum value within surface	value over 50% of surface
Experimental example 1	0. 7 6	1	5. 3	1
Experimental example 2	0. 8 3	1. 2	6. 0	1. 0 1
Experimental example 3	1. 4	2. 9	7. 0	1. 0 2
Experimental example 4	1. 7	3. 3	7. 4	1. 0 3

Note : For the leakage current values  $3.39 \times 10^{-8} \text{ A/cm}^2$  was taken as 1, and for Tox 32,74 Angstroms was taken as 1.

TABLE 4

	Leakage current value			To x
	Minimum value within surface	value over 50% of surface	Maximum value within surface	value over 50% of surface
Prior art example	1. 0 0	1. 5	2. 6	1. 0 0
Experimental example 5	0. 4 3	1	1. 7	1

Note : For the leakage current values  $0.074 \times 10^{-8} \text{ A/cm}^2$  was taken as 1, and for Tox 33,35 Angstroms was taken as 1.